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Computer Lab Session 1:
Electronic Mail as an Information Networking Tool

?The Internet mail system is, by far, the most important of the various Internet services. Every day, countless messages are sent from one part of the Internet to another and it is no exaggeration to say the economy of the world is now dependent on Internet mail...

One of the most important uses of the Internet mail system is to allow people who are not near one another to work together. Indeed, it is common for someone to collaborate with a person who is thousands of miles away; someone they may never meet in person.?

Harley Hahn, *The Internet: Complete Reference*

In Africa, e-mail is not a luxury but a bare necessity - much more so than in Europe. The main reason, says Ekong, is that other modes of telecommunication are too costly for African budgets. It takes ten minutes to read 2,000 words aloud, and a ten-minute voice phone call from the Netherlands to Ghana costs 34 USD. And although the fax machine is faster and cheaper (2,000 words in a compact font will take two minutes to send), the same operation will still cost 7 USD. By contrast, an e-mail message of 2,000 words (around 12 kilobytes or 96 kilobits in digital terms), sent via a modem with a throughput speed of 14 kilobits per second, will take seven seconds to reach Accra from Amsterdam, and cost 0,40 USD. What is more, if the telephone line is good, a 28 k/s modem working at full speed will further halve the transmission charge - making it 175 times cheaper than a voice phone call across the same distance. No wonder e-mail is so important to the developing world - not least for the planet's poorest continent. It is the only mode of international telecommunication that Africa can afford on any reasonable scale.

Michiel Hegener, *Telecommunications in Africa - via Internet in Particular*

Electronic mail (e-mail) is used more than any other Internet resource. For many people and businesses--even in countries with full Internet access--e-mail is the only Internet service they use. For those countries without full Internet access through an online service provider, e-mail provides a critical link to the world-wide information network. Regardless of whether a person has full Internet access, learning to effectively use e-mail services can save time and money.

The practice exercises in this session provide basic skill development in using electronic mail services to establish information networks, to collaborate with other agribusiness, industry and business development professionals, and to collect and disseminate valuable business information.

C   The overview for the practice exercises in Session 1 provides an introductory explanation of e-mail addresses on the Internet.

C   Practice Exercises 1.1 - 1.3 introduce basic computer and electronic mail skills which can be used for information networking and applied business purposes.

C   Practice Exercise 1.4 provides an opportunity to practice human networking skills and to establish e-mail contact with individuals of similar interests around the world.

C   Discussion Exercise 1.5 considers how electronic mail can be utilized by trade and professional organizations to promote agribusiness and general business development

interests in the West Africa region.

Additional e-mail training tips and network reference information are included under the section entitled *Training Resources for Computer Lab Session 1*. These resources can be used in conjunction with the practice exercises in this training course, or for further independent study. The additional resources include:

C   List of Country Level Domain Names

C   A Beginner's Guide to Effective E-Mail

C   Tips from Business Netiquette International

C   The Smiley**?**s and Acronyms Directory

C   List of African Full Internet & E-Mail Service Providers.

Overview: Electronic Mail Addresses

In the practice exercises for Session 1, you will address, compose, send and reply to e-mail messages with other participants in this training workshop. These same skills can be used to establish networks and to exchange valuable information with other agribusiness and business development colleagues in the West Africa region and throughout the world.

Before beginning the practice exercises, it is important to understand that every computer on the Internet has its own unique address, and every person who uses the Internet has their own user identification (userid). You can send e-mail messages to anyone with an Internet e-mail address. Once you know a person's Internet address, you can send mail, transfer information or data files, or have conversations with other agribusiness colleagues.

All Internet addresses follow the same form: the person's user name, followed by an @ character (called the **?**at**?** sign), followed by the name of the computer. This form can also be expressed as: *userid@domain*.   *Userid* is the person's name or user code. The part of the address after the @ character is called the *domain,* and denotes the unique address of the computer machine on which a person's userid receives mail.

The domain style addressing scheme used by the Internet is broken into segments separated by periods (.). Each segment, or subdomain, has a meaning according to its order in the address. The best way to understand a domain name is to read from right to left. The last subdomain on the right, or top-level domain, is the most general and indicates the type of organization or the country in which the computer is located. The subdomains to the left provide the name of the specific computer and, in some cases, the name of the institution where the computer is located. (Examples of organizational and geographical top-level domains are illustrated in Figure 1 and Figure 2, respectively. A more complete list of country domain names is provided in the *Training Resources* section of this guide.)

Domain	Meaning
com	commercial organization
edu	educational institution
gov	government
int	international organization
mil	military
net	networking organization
org	non-profit organization

Figure 1

Domain	Meaning
au	Australia
bj	Benin
bk	Burkina Faso
ca	Canada
td	Chad
ci	Cote d'Ivoire
cm	Cameroon
fr	France
gh	Ghana
gn	Guinea
lr	Liberia
mg	Madagascar
mw	Malawi
ml	Mali
na	Namibia
ne	Niger
ng	Nigeria
sl	Sierra Leone
sn	Senegal
ch	Switzerland
tg	Togo
ug	Uganda
uk	United Kingdom
us	United States
za	South Africa
zm	Zambia
zw	Zimbabwe

Figure 2

Here are two examples of Internet e-mail addresses: zntb@zamnet.zm
bitftp@pucc.princeton.edu

In the first example, the person's or organization?s userid is *zntb* and the domain refers to a computer called *zamnet* that is located in Zambia (*zm*). In the second example, the person or organization?s userid is *bitftp* and the domain refers to a computer called *pucc* that is located at Princeton University (*princeton*), which is an educational institution (*edu*).

It is also possible to send the same e-mail message to two or more individuals or geographic locations. When sending a message to multiple recipients, simply use a comma to separate the individual e-mail addresses. For example, to send a message to both the *zntb* and *bitftp* addresses listed above, simply separate the e-mail addresses with a comma:

zntb@zamnet.zm,bitftp@pucc.princeton.edu

Practice Exercise 1.1   Compose and send an e-mail message.

Step 1. Login to your e-mail or Internet access computer account.

Step 2. Using a list of e-mail addresses provided by the trainer, address e-mail to one or more workshop participants. (If you are sending the message to more than one person at the same time, remember to use a comma between individual e-mail addresses).

Step 3. Address either a carbon or blind carbon copy to yourself.

Step 4. Compose an appropriate message or ask an informational question related to agribusiness or business development concerns in the West African region.

Step 5. Send the e-mail message.

Practice Exercise 1.2   Forward an e-mail message.

Step 1. Review messages received from other training participants.

Step 2. Forward a copy of the received message to at least one other training participant.

Practice Exercise 1.3   Reply to an e-mail message.

Step 1. Review messages received from other training participants.

Step 2. Prepare a reply e-mail message. Include or copy the original message in your reply, and compose an appropriate response.

Step 3. Send the reply to the person who sent the original message.

Practice Exercise 1.4 Compose and send an introductory e-mail message to individuals of similar interests around the world.

Step 1. Using a list of e-mail addresses provided by the trainer, address an e-mail message to an individual of similar interests in another country or region of the world.

Step 2. Utilize human networking, good inter-personal skills and appropriate business etiquette in composing an initial introduction of yourself. (Always be polite!)

Step 3. Compose an appropriate message or ask an information question related to agribusiness or business development concerns in the West African region. (Remember to be specific in stating the purpose of your e-mail message and the type of information required).

Step 4. Send the e-mail message.

* Note: Please expect delays in receiving a reply e-mail. Delays may be due to a number of factors, including: differences in international time zones, delays in e-mail transmittal by computer servers across the Internet, the business schedule of the person to whom the e-mail was sent; and the degree of complication required to provide an adequate answer to your information question.

Discussion Exercise 1.5
Using e-mail for agribusiness or general business development purposes.

Step 1. Consider the following questions:

C How could the use of electronic mail enhance your trade, commodity or professional association's ability to gather and disseminate business information?

C How could your organization use e-mail to establish an information network either among its constituents or on their behalf?

C Identify individuals, organizations, businesses or government ministries with whom you or your business associates would like to have an established e-mail connection. What kind of information would you exchange? How could you obtain these e-mail addresses?

C What are the biggest impediments to e-mail communication within your business organization? country? West African region? How can these impediments be addressed and resolved?

Computer Lab Session 2:
Electronic Mailing Lists

In this session you will identify professional and world-wide information networks relevant to your interests.   You will also practice e-mail and networking skills for interacting with other agribusiness or business development colleagues beyond the West African region. The tool for participating in this global information-sharing network is the electronic mailing list.

C   The overview for the practice exercises in Session 2 gives a brief, introductory description of electronic mailing lists as well as some basic commands for one of the most prominent mailing list programs used on the Internet. (A more detailed comparison of basic commands for other leading mailing software programs is included in the section entitled *Training Resources for Computer Lab Session 2*.)

C   Practice Exercises 2.1 and 2.2 provide practical examples of how to identify electronic mailing lists or discussion groups relevant to your professional and business interests. (For additional information on selected mailing lists, you may also refer to the sections entitled *Training Resources for Computer Lab Session 5* and *Selected Guides to Information Resources on the Internet*.)

C   Practice Exercises 2.3-2.6 provide practice examples of how to join an electronic mailing list, use common mailing list commands, and participate in substantive group discussions.

C   Practice Exercise 2.7 is an advanced exercise that provides an opportunity to search archived discussions for substantive information or research topics.

C   Discussion Exercise 2.8 considers how electronic mailing lists can be utilized by commodity, trade, business and professional organizations to promote agribusiness and general business development interests in the West Africa region.

Overview: Electronic Mailing Lists and Basic Commands

Electronic mailing lists (also known as electronic conferences, discussion groups, Listserv, etc.) constitute one of the most popular methods of group communication and information networking. Just like subscribing to an academic or industry journal of your choice, you can participate in an electronic exchange of information, new ideas or the latest developments on a specified topic, such as agribusiness, marketing, strategic planning, financing, or information technology issues. There are literally thousands of these electronic discussion groups! The trick is to find the right discussion group for your professional or business interests!

An electronic mailing list is managed by a computer program. Although every mailing list has a person who acts as an administrator, it is the computer program that actually maintains the mechanical upkeep of the mailing lists (i.e., a list server). There are three common mailing list management programs: Listserv, Listproc and Majordomo. These programs automatically distribute an e-mail message from one member of a mailing list to all other members on that same list.

To subscribe to a mailing list, you simply send an e-mail message to the computer program that administers the list. When you subscribe to a list, your name and e-mail address are automatically added to the list. You will receive a standard e-mail letter of welcome providing important information about the list. You will also begin receiving all postings or mail messages sent to the list by its members.

You may simply read or follow the exchange of electronic discussion by list members, or join in the discussion at any time. If you choose to respond to a particular message or discussion point, you can send your response to the list (in which case, all members of the list will receive it), or to an individual on the list. You can signoff (unsubscribe) from a list at any time. You can also get a listing of all the members of a list and their e-mail addresses.

A few of the basic commands for the listserv mailing program are described below. (Detailed information and commands for other leading mailing software programs are included in the section entitled *Training Resources for Computer Lab Session 2.*)

> *Subscribing*
> To subscribe to a list, send an e-mail message to the listserv address with the subject line blank and one line in the body of the messager:
> > *SUB listname yourname*
> (where *listname* is the name of the list, and *yourname* is your first and last name)
>
> *Unsubscribing*
> To have your name removed from a listserv, send an e-mail message to the listserv address with the subject line blank and one line in the body of the message:
> > SIGNOFF listname
> (where *listname* is the name of the list)

Posting
If you have a comment or question that you wish to distribute to all members of a list, send it as e-mail to the list address for that list. Please note that the list address is different from the listserv (program) address.

Review
To obtain individual e-mail addresses and names of the mailing list subscribers, send an e-mail message to the listserv address with the subject line blank and one line in the body of the message:
> *REVIEW* listname

(where *listname* is the name of the list)

Conceal
To hide your name from users issuing the review command, send an e-mail message to the listserv address with the subject line blank and one line in the body of the message:
> *SET listname CONCEAL*

(where *listname* is the name of the list)

Digest
To compile all messages posted during a given period of time (e.g. daily, weekly) and send them to you as a single message with a list of subject headings at the top. To use this option, send an e-mail to the listserv address with the subject line blank and one line in the body of the message:
> *SET listname DIGEST*

(where *listname* is the name of the list)

Practice Exercise 2.1 Identify relevant electronic discussion groups from the Directory of Scholarly and Professional E-Conferences.

Option 1. Obtain a directory of scholarly and professional conferences for Agriculture, Veterinary Science and Zoology.

Step 1. Send an e-mail message addressed to LISTSERV@KENTVM.KENT.EDU.

Step 2. Leave the subject line blank.

Step 3. The text of the message must read:
> *GET ACADLIST VETZOO*

Step 4. Send the message. Within a few minutes (sometimes longer) you will receive the requested directory file, including brief descriptions and subscription instructions for each electronic conference.

Option 2. Obtain a directory of scholarly and professional conferences for Business and Economics.

Step 1. Send an e-mail message addressed to LISTSERV@KENTVM.KENT.EDU.

Step 2. Leave the subject line blank.

Step 3. The text of the message must read:
> *GET ACADLIST BUSECON*

Step 4. Send the message. Within a few minutes (sometimes longer) you will receive the requested directory file, including brief descriptions and subscription instructions for each electronic conference.

Practice Exercise 2.2
Use keyword searches to identify relevant electronic discussion groups.

Option 1. Conduct a keyword search to identify mailing lists relevant to your interests.

Step 1. Address an e-mail message to LISZTER@BLUEMARBLE.NET.

Step 2. Leave the subject line blank.

Step 3. The text of the message must read:
    search keyword

> (Replace *keyword* with your own search word, e.g. search *Africa*, search *Agribusiness*, search *Marketing*, search *Financing*. Note that the use of quotation marks forces an exact match of the keyword, but is not mandatory.)

Step 4. Send the message. Within a few minutes (sometimes longer) you will receive an excerpt from the Listserv lists which pertain to your keyword search. The result will be a list of mailing lists, along with relevant subscription information.

Option 2. Conduct a keyword search to identify mailing lists relevant to your interests.

Step 1. Address an e-mail message to LISZTER@LISTSERV.NET

Step 2. Leave the subject line blank.

Step 3. The text of the message must read:
    list global/keyword

> (Replace *keyword* with your own search word, e.g. list global/Africa, list global/Agribusiness, list global/business development.)

Step 4. Send the message. Within a few minutes (sometimes longer) you will receive an excerpt from the Listserv lists which pertain to your keyword search. The result will be a list of mailing lists, along with relevant subscription information.

Practice Exercise 2.3   Subscribe to an electronic discussion group

Option 1. Subscribe to an electronic discussion group of your choice.

Step 1. From the Directory of Scholarly E-Conferences or list of mailing lists obtained in the preceding exercises (2.1 and 2.2), review and select an electronic discussion group related to a business development, agribusiness or African policy topic of your choice. Use the subscription information provided in the directory of e-conferences or lists of mailing lists as appropriate.

Step 2. Address a message to *Listserv@some.node*.

Step 3. Leave the subject line blank.

Step 4. The text of the message should read:
   Sub ListName YourFirstname YourLastname

Step 5. Send the message. Within a few minutes (sometimes longer) you will receive a new subscriber confirmation memo. In many cases, this confirmation memo will provide instructions on how to participate in list discussion. (It is a good idea to save this message for later reference.)

Option 2. Subscribe to AGNET-AFRICA, an electronic mailing list devoted to networking and information sharing among agribusiness trade and professional associations in eastern and southern Africa. Now, it begins in West Africa.

Step 1. Address a message to *Listserv@home.ease.lsoft.com*

Step 2. Leave the subject line blank.

Step 3. The text of the message should read:
   Sub AGNET-AFRICA YourFirstname YourLastname

Step 4. Send the message. Since this is a private list with membership restricted primarily to African agribusinesses and associations, you will receive an e-mail message from the list administrator requesting more information about your interest in African agribusiness.

Step 5. Compose a reply e-mail message explaining that you are a member of an African agribusiness firm or association. Upon receipt of your message, the list administrator will process your subscription membership and send you a new subscriber confirmation memo. This confirmation memo will provide instructions on how to participate in list discussion. (It is a good idea to save this message for later reference.)

* Note: Agnet-Africa welcomes messages composed by list members in English, French or other international languages commonly used in business in Africa.

Option 3. Subscribe to the AFRIK-IT list, an electronic discussion group of the African Network of IT Experts and Professionals.

Step 1. Address a message to *LISTSERV@LISTSERV.HEA.IE*

Step 2. Leave the subject line blank.

Step 3. The text of the message should read:
> *Sub AFRIK-IT YourFirstname YourLastname*

Step 4. Send the message. Within a few minutes (sometimes longer) you will receive a new subscriber confirmation memo. In many cases, this confirmation memo will provide instructions on how to participate in list discussion. (It is a good idea to save this message for later reference.)

* Note: The AFRIK-IT mailing list provides useful information, articles and other Internet resources for both IT novices and experts alike. It is a good source for following recent advances in Internet and telecommunication capabilities on both a regional and country basis. The ongoing development of information technology capabilities in Africa is likely to have an effect on how the regions business firms and agribusinesses conduct their daily business and communicate with prospective trade partners around the world.

Option 4. Subscribe to AFLIB-L, a lightly moderated discussion forum for libraries in Africa to "encourage contact and communication between and among professionals on the continent."

Step 1. Address a message to *AFLIB-L@statelib.pwv.gov.za*

Step 2. Leave the subject line blank.

Step 3. The text of the message should read:
> *Subscribe YourFirstname YourLastname Your e-mail address*

Step 4. Send the message.   Within a few minutes (sometimes longer) you will receive a new subscriber confirmation memo. In many cases, this confirmation memo will provide instructions on how to participate in list discussion. (It is a good idea to save this message for later reference.)

* Note: The primary language will be English, but they soon hope to support French and Portuguese as well. Anticipated themes for discussion include professional issues, the application of technology, and notices of major projects. This list also might be useful for business firms or agribusiness associations seeking to collect and disseminate information.

Practice Exercise 2.4 Review names of other list subscribers

Step 1. From the directory of e-conferences and mailing lists obtained in the preceding exercises

(or from training facilitator), review and select an electronic discussion group related to a business development, agribusiness or African policy topic of your choice.

Step 2. Address a message to *Listserv@some.node*.

Step 3. Leave the subject line blank.

Step 4. The body of the text should read:
  REVIEW listname
  (where listname is the name of the list)

Step 5. Send the message. Within a few minutes (sometimes longer) you will receive a list of subscriber names and their network address.

Step 6. Examine the list of subscriber names. Who subscribes to this list? What do the entries on the subscriber list tell you about this electronic conference group?

Practice Exercise 2.5
Post a comment or participate in an electronic discussion group.

Step 1. Address an e-mail to a list address to which you subscribed in Exercise 2.3.
(Please note that the list address is **different** from the listserv program address.)

Step 2. In the text or body of the e-mail message, compose a business development,agribusiness or
professional inquiry or discussion comment. This message should be directed to
all members of the electronic discussion group. *Note: Be as specific and polite as
possible when stating your information inquiry or discussion comment.*

Step 3. Send the e-mail message. If it is a moderated conference, you may receive a message or
additional instructions from the moderator concerning the posting of your comment.
 Follow these instructions and revise your comments for posting, as needed. Once
the message has been posted, you should receive a response to your query from one
or more subscribing members to the electronic conference within a day or two.

Step 4. Who responded to your question? In what country were they located? Was the information
they provided helpful? Was it valid?

Step 5. Send a return e-mail message thanking the person who responded to your request.
(Remember that the Internet is not just a system of computers, but it is connecting
you with individual people. It is important to practice courtesy.)

Practice Exercise 2.6 Signoff or unsubscribe to an electronic discussion group

Step 1. Address an e-mail message to all listserv program addresses to which you subscribed in
Practice Exercise 2.3. The e-mail address should follow the form of
Listserv@some.node

Step 2. Leave the subject line blank.

Step 3. The text of the message should read:
UNSUB ListName

Step 4. Send the message. Within a few minutes (sometimes longer) you will receive a
confirmation memo that you are no longer on the subscription list.

*IMPORTANT NOTE: If you subscribed to any electronic mailing lists during the computer lab
sessions and you did not use your own personal home or office e-mail address, please be sure to
unsubscribe to these lists prior to the conclusion of this training session!*

Advanced Practice Exercise 2.7
Using E-Mail to Search Electronic Discussion List Archives

Exercise Overview

Many electronic discussion lists archive past messages and it is possible to search these archives for a given topic. These databases of archived discussion topics can be an excellent resource for obtaining specific knowledge and/or professional contacts for subjects that have not been widely documented or published. Knowing how to search these archived discussions can be an important research technique and information resource asset for many businesses and individuals.

To search an archived list using e-mail, send an e-mail message to the listserv address, placing the search commands in the body of the letter. There is an extensive set of possible search commands. A simple example is given here.

```
//
DATABASE SEARCH DD=RULES
//RULES DD *
SEARCH phrase IN listname
INDEX
/*
```

Sending the above commands will return all articles from the list you specified for "*listname*" that contains the words or text you specified for "*phrase*". The listing you will receive (via e-mail) has articles which match the criterion listed by article number and subject line. Review the subject lines and select the article number(s) for those subjects in which you are interested. Use the selected article number(s) to send a second message following the form below:

```
//
DATABASE SEARCH DD=RULES
//RULES DD *
SEARCH phrase IN listname
PRINT ALL OF numberlist
/*
```

The above commands issued in your second e-mail message will list the contents of the selected article number(s) you indicated for *numberlist*. For example, if you want to see the contents for article numbers 105, 342, and 501, you would type: PRINT ALL OF 105, 342, 501.

Practice Examples

Contributions sent to the AFRIK-IT list are automatically archived. There are two ways of obtaining a list of the archived discussions: through an INDEX command or through the database search facilities. You can get a list of the available archive files by sending an "INDEX AFRIK-IT" command to LISTSERV@LISTSERV.HEA.IE. You can then order these files with a "GET AFRIK-IT LOGxxxx" command, or using LISTSERV's database search facilities. To obtain more information on using the database search facilities send an e-mail message with the "INFO DATABASE" command.

Option 1. Searching archives using the INDEX command.

Step 1. You must first subscribe to the AFRIK-IT mailing list. To subscribe to this list, follow the directions given in *Option 3* under Practice Exercise 2.3.

Step 2.   Address and send an e-mail message to LISTSERV@LISTSERV.HEA.IE. Leave the subject line blank. The text of the message should read:
                 INDEX AFRIK-IT

Step 3. The listserv mailing program will send you a list of discussion messages or files posted by members of the AFRIK-IT mailing list. Review this list and select the articles or discussion messages which are of interest to you. Be sure to note the corresponding log number assigned to your selected articles.

Step 4. To order copies of these articles or discussion messages, address and send a second e-mail message to LISTSERV@LISTSERV.HEA.IE. Leave the subject line blank. The text of the message should read:
                 GET AFRIK-IT LOGxxxx

                 (*LOGxxxx* represents the archive number for a given month and year. For example, to review recent postings for November 1998, the text of the message would read: *GET AFRIK-IT LOG1198*)

Option 2. Searching archives using the Listserv database search facility for AFRIK-IT.

Step 1. You must first subscribe to the AFRIK-IT mailing list. To subscribe to this list, follow the directions given in *Option 3* under Practice Exercise 2.3.

Step 2. Address and send an e-mail message to LISTSERV@LISTSERV.HEA.IE. Leave the subject line blank. The text of the message should read:
                 INFO DATABASE

Step 3. The listserv mailing program will send you specific information and directions on how to use the database search facility to identify discussion topics and messages for a specific subject or keyword (e.g. agribusiness, Cote d'Ivoire, Ghana, Mali)

Discussion Exercise 2.8

Creating an electronic mailing list or information network for agribusiness and general business development purposes in the West Africa region

Step 1. Consider and discuss the following questions:

- C   Review the lists of electronic mailing lists and discussion groups from Practice Exercises 2.1 and 2.2. What discussion groups appear to be relevant to the interests of West African business development or agribusiness associations? What type of information or discussion topics are noticeably absent? What kind of information would you ideally like to obtain from these discussion groups?

- C   How could you use these established global information networks for business development or agribusiness interests in your region?

- C   On a regional level, what types of electronic discussion groups or information-sharing networks would you like to see developed in West Africa? What target audience (e.g individuals, associations, institutions, government ministries) would you like to subscribe or participate in these networks? Would you limit participation to just your region? What discussion topics would be most relevant to the interests of West African agribusiness?

Computer Lab Session 3: (Advanced E-Mail Skills) Accessing the World Wide Web and Other Internet Resources via Electronic Mail

> The fact that the AAU [African Association of Universities] has only a store-and-forward connection to the Internet (also often called a dial-up link) does not mean that the Internet's tens of thousands of databases and hundreds of thousands of "homepages" are entirely out of reach; they are just harder to access. The information that Dutch Internet subscribers dig up using the World Wide Web, Gopher, and Telnet is available to Bart-Plange by means of automatic search keys that he sends as e-mail. The next time he contacts South Africa, they return with the information he has requested, like a dog fetching the newspaper. "For example, some time ago I needed a software program for the people here who work with Apple Macintoshes, but it was unobtainable in Ghana," says Bart-Plange. "I could have ordered it in America, sent a dollar cheque, and then had to wait for ages. Instead of that, I did an Archie search. I then received a list in my e-mail of all the ftp sites where that software could be obtained free. I ordered it from one of them yesterday, and this morning it was here. I've already installed it on the Macintoshes."
> Michiel Hegener, *Telecommunications in Africa - via Internet in Particular*

In this session you will be provided with selected examples which demonstrate that, even for countries and persons without direct Internet access, basic e-mail services can be used to access the more advanced components of the world-wide network of information resources.

Using e-mail messages and commands, it is possible to access almost any Internet resource or service (e.g. FTP, Gopher, Archie, Veronica, Finger, Usenet, Whois, Netfind, WAIS, and the World-Wide Web). A basic e-mail command, such as get or send, followed by the address of the desired information is sent to one of several mail servers set up for this purpose. The server then retrieves the file from its Internet location, and sends it to the requester by return e-mail. The response time may vary significantly depending on the geographical location and level of network traffic. However, for countries and persons without direct Internet access, these e-mail servers provide an important link to the worldwide network of information resources.

Please keep in mind that these servers are provided as a public service by volunteers. Those who have direct (or inexpensive) Internet access to the full range of World Wide Web resources should refrain from using these mail servers. Excessive traffic has caused the recent abandonment of some servers.

The practice exercises in this session provide opportunities to conduct more advanced research and information sourcing skills using electronic mail services.

C   Practice Exercises 3.1 provides examples of advanced research techniques using electronic mail. The practice exercises allow participants to develop their own search strategies for identifying relevant information available on the World Wide Web. Specific options are presented for submitting e-mail search queries to several international search engines.

C   Practice Exercise 3.2 gives participants an opportunity to review, select and retrieve documents and files identified through the e-mail search query conducted in Practice

Exercise 3.1

C   Practice Exercise 3.3 provides additional practical examples of how to retrieve World
         Wide Web documents via electronic mail. Uniform Resource Locators are provided for
         selected documents on the World Wide Web, and participants may choose which
         documents to retrieve based upon their own professional and business interests.

         <   Options 1-2 provide Internet addresses for retrieving an extensive guide to
                  accessing the Internet by e-mail, and more information on electronic networking
                  and connectivity in Africa.

         <   Options 3-4 focus on obtaining agribusiness related documents.

         <   Options 5-7 provides business planning and marketing information.

         <   Option 8 retrieves contact information for African and other resource centres
                  devoted to the collection and dissemination of indigenous knowledge through such
                  mediums as the Internet.

C   Practice Exercise 3.4 provides several practical examples of how to retrieve graphic
         image files via electronic mail.

Additional guides and tips for advanced e-mail access to the Internet are included under the
section entitled *Training Resources for Computer Lab Session 3*. These resources can be used in
conjunction with the practice exercises in this training course, or for further independent study. The
additional resources include:

C   Accessing the Internet By E-mail: Dr. Bob's Guide to Offline Internet Access

C   Agora: Retrieving WWW Documents through mail

Finally, to assist in handling compressed and encoded e-mail file attachments, several common
software utilities exist and can be downloaded from the World Wide Web. These software
utilities include:

C   UUEncode/UUDecode (for DOS) and WINCODE (for Windows)

C   WINZIP (for Windows)

Practice Exercise 3.1
Conducting a World-Wide Web information search by e-mail

Exercise Overview

The World Wide Web (WWW) is touted as the future of Internet navigational tools. The WWW is graphical in appearance and is generally more readily understood by Internet users. However, use of the WWW requires greater computer and telecommunication resources. Many persons and individuals simply do not have the required resources to directly access these Internet services.

If you need information on a specific agribusiness topic but do not know the name or location of an appropriate information source, how you would find or retrieve a document or file from the World Wide Web? There are several search engines that have been developed to search and identify specific information topics, networks, or file types on the World Wide Web. Until recently, these search engines could only be used through direct Internet access; however, for those with either limited or costly Internet access, it is possible to submit search queries by e-mail.

There are several international search engines available. A sample list of these search engines along with their Internet address is provide below.

Yahoo!   URL: http://www.yahoo.com/
Alta Vista   URL: http://altavista.digital.com/
Excite   URL: http://www.excite.com/
HotBot   URL: http://www.hotbot.com/
Infoseek   URL: http://www.infoseek.com/
Lycos   URL: http://www.lycos.com/
WebCrawler   URL: http://www.webcrawler.com/

Each of these international search engines is programmed or designed with a different set of search features or parameters. Consequently, it is generally a good idea to try a search strategy using several search engines, and to compare which search features produce the best search results for your research purposes. Also, not all of the search engines may work well with search queries submitted by e-mail. In other words, if an e-mail search query does not produce the results you desire using one search engine, try submitting the same query to another search engine. (Note: Please refer to the *Training Resources for Computer Lab Session 4* for a critique of the leading search engine programs as well as additional research tips and search strategies for the individual search engines cited.)

For Practice Exercise 3.1, you may submit your e-mail search queries to one of the following mail servers:

> agora@dna.affrc.go.jp (Japan)
> agora@kamakura.mss.co.jp (Japan)
> www.mail@ciesin.org (USA)
> agora@info.lanic.utexas.edu (USA)
> agora@www.undp.org (restricted to developing countries)

Practice Examples

Option 1. Sample WebCrawler Query.

The following is a sample e-mail query using the WebCrawler search engine. When using more than one search term, the keywords must be separated with a **?**+"sign (e.g. plants+medicinal). You may substitute the keyword(s) provided in each example with your own keyword(s).

Step 1. Address an e-mail message to one of the Agora servers listed in this exercise section.

Step 2. Leave the subject line blank.

Step 3. To submit a search query for the keyword *agribusiness*, the text of the message should read:
> *send http://www.webcrawler.com/cgi-bin/WebQuery?agribusiness*

> To submit a search query for the keywords *Africa* and *agribusiness*, the text of the message should read:
> *send http://www.webcrawler.com/cgi-bin/WebQuery?agribusiness+Africa*

Option 2. Sample Query of the Lycos Search Engine

The following is a sample e-mail query using the Lycos search engine. When using more than one search term, the keywords must be separated with a **?**+"sign (e.g. cocoa+prices).   You may substitute the keyword(s) provided in each example with your own keyword(s).

Step 1. Address an e-mail message to one of the Agora servers listed in this exercise section.

Step 2. Leave the subject line blank.

Step 3. To submit a Lycos search query for the keywords *cocoa* and *prices*, the text of the message should read:
> *send http://www.lycos.com/cgi-bin/pursuit?&query=cocoa+prices*

Option 3. Sample Queries of the Alta Vista Search Engine.

The following is a sample e-mail query using the Alta Vista search engine. When using more than one search term, the keywords must be separated with a **?+**" sign (e.g. agribusiness+managment). You can also conduct a more narrow search strategy by forcing an exact match of a phrase or keyword search string (e.g. keywords that must appear next to each other). To search for phrases, you must begin and end the phrase or keyword search string with the character set **?%22**" (e.g. %2agribusiness+management%22).

You may substitute the keyword(s) provided in each example with your own keyword(s).

Step 1. Address an e-mail message to one of the Agora servers listed in this exercise section.

Step 2. Leave the subject line blank.

Step 3. To submit an Alta Vista search query for the phrase **?***agribusiness management***?** (e.g.
keywords appearing next to each other), the text of the message should read:
send http://altavista.digital.com/cgi-bin/query?&q=%22agribusiness+management%22

To submit an Alta Vista search query for the keywords *agribusiness* and
management (e.g. keywords appearing anywhere in the document, the text of the
message should read:
send http://altavista.digital.com/cgi-bin/query?&q=agribusiness+management

Option 4. Sample Query of the Yahoo! Search Engine.

The following is a sample e-mail query using the Yahoo! search engine. When using more than one search term, the keywords must be separated with a **?+**" sign (e.g. plants+medicinals).   You may substitute the keyword(s) provided in each example with your own keyword(s).

Step 1. Address an e-mail message to one of the Agora servers listed in this exercise section.

Step 2. Leave the subject line blank.

Step 3. To submit a Yahoo! search query for the keyword *agribusiness*, the text of the message
should read:
send http://search.yahoo.com/bin/search?p=agribusiness

To submit a Yahoo! search query for the keywords *agribusiness* and *Africa*, the
text of the message should read:
send http://search.yahoo.com/bin/search?p=agribusiness+africa

Option 5. Sample Query of the Infoseek Search Engine

The following is a sample e-mail query using the Infoseek search engine. When using more than one search term, the keywords must be separated with a **?**+ sign (e.g. plants+medicinal).   You may substitute the keyword(s) provided in each example with your own keyword(s).

Step 1. Address an e-mail message to one of the Agora servers listed in this exercise section.

Step 2. Leave the subject line blank.

Step 3. To submit an Infoseek search query for the keyword **?***agribusiness*, the text of the message
    should read:
    send http://www.infoseek.com/Titles?qt=agribusiness

    To submit an Infoseek search query for the keywords *agribusiness* and *Africa*, the
    text of the message should read:
    send http://www.infoseek.com/Titles?qt=agribusiness+africa

Practice Exercise 3.2
Using e-mail query results to obtain World-Wide Web documents

Step 1. Review results of the e-mail search queries submitted to the various search engines in
    Practice Exercise 3.1 and identify the Uniform Resource Locator (URL) for any
    documents which you would like to retrieve.

Step 2. For each individual document identified, address a separate e-mail message to
    agora@dna.affrc.go.jp.

Step 3. Leave the subject line blank.

Step 4. In the text of the message type the world **?**send" followed by the URL or Internet address of
    the selected document identified from the e-mail search results.

Practice Exercise 3.3
Examples of obtaining Gopher and World-Wide Web documents by e-mail

Exercise Overview

Both Gopher and the World-Wide Web provide an impressive collection of information sources and files which can be retrieved by sending an e-mail message to one of the following servers:

agora@dna.affrc.go.jp	(Japan)
agora@kamakura.mss.co.jp	(Japan)
www.mail@ciesin.org	(USA)
agora@info.lanic.utexas.edu	(USA)
agora@www.undp.org	(restricted to developing countries)

In the body of the e-mail message, include the Uniform Resource Locator (or URL) which defines the location of the desired information source. You will receive the document you requested by return e-mail, with a list of other referenced documents which can be used to make further requests. (Note: For additional helpful tips refer to the document in the *Training Resources* entitled **?**Agora: Retrieving WWW Documents through mail.")

*Practice Exercise***s**

*Option 1. Obtain a copy of the text file on **?**Africa - E-mail Access, Electronic Networking,**?** including URLs of linked sites*.

Step 1. Address an e-mail message to agora@dna.affrc.go.jp.

Step 2. Leave the subject line blank.

Step 3. The text of the message should read:
     send http://www-sul.stanford.edu/depts/ssrg/africa/elecnet.html

Option 2. Obtain an extensive guide to accessing the Internet by E-Mail.

Step 1. Address an e-mail message to mailbase@mailbase.ac.uk (for users in Europe, Asia and
     Africa).

Step 2. Leave the subject line blank.

Step 3. The text of the message should read:
     send lis-iis e-access-inet.txt

Option 3. Obtain monthly commodity price data from the World Bank.

Step 1. Address an e-mail message to agora@dna.affrc.go.jp

Step 2. Leave the subject line blank.

Step 3. The text of the message should read:
> *send http://www.worldbank.org/html/ieccp/psaug.html*

Option 4. Obtain from the U.S. Small Business Administration its guide on how to prepare an International Business Plan.

Step 1. Address an e-mail message to agora@dna.affrc.go.jp

Step 2. Leave the subject line blank.

Step 3. To obtain a copy of **?**International Business Plan**?**, the text of the message should read:
> *send http://www.sbaonline.sba.gov/OIT/info/Guide-To-Exporting/trad6.html*

Option 5. Obtain a list of addresses of Indigenous Knowledge Resource Centres in Africa and around the World.

Step 1. Address an e-mail message to agora@dna.affrc.go.jp

Step 2. Leave the subject line blank.

Step 3. The text of the message should read:
> *send http://www.nuffic.nl/ciran/ikdm/addresses.html*

Practice Exercise 3.4
Examples of retrieving graphic image files e-mail

Exercise Overview

Similar to the World Wide Web documents obtained in Practice Exercise 3.3, it is possible to retrieve graphic image files by e-mail. In the body of the e-mail message, type the **?***send***?** command followed by the Uniform Resource Locator (or URL) of the desired graphic image file. (Note: For more information on retrieving image files refer to the document in the *Training Resources* entitled **?**Agora: Retrieving WWW Documents through mail.**?**)

Since graphic images are non-binary files and e-mail messages are binary or plain text documents, the mail server software will encode the document before attaching it to a return e-mail message. You will first need to save the attached file and then decode the non-binary file before viewing the graphic image.

Practice Exercises

Option 1. Obtain a clip art image of maize.

Step 1. Address an e-mail message to agora@dna.affrc.go.jp

Step 2. Leave the subject line blank.

Step 3. The text of the message should read:
> *send http://leviathan.tamu.edu:70/I/clipart/fsl/0361-0480/fsl0440.gif*

Step 4. The attached document you will receive by return mail will be uuencoded. You must save and decode the attached file before viewing the graphic image. You may use either uudecode or Wincode software to decode the attached file.

Option 2. Obtain an image of small globe with a focus on Africa.

Step 1. Address an e-mail message to agora@dna.affrc.go.jp

Step 2. Leave the subject line blank.

Step 3. The text of the message should read:
        send http://gaia.info.usaid.gov/fews/globet.gif

Step 4. The attached document you will receive by return mail will be uuencoded. You must save
        and decode the attached file before viewing the graphic image. You may use either
        uudecode or Wincode software to decode the attached file.

Computer Lab Session 4: Accessing Agribusiness Market Information via the World Wide Web

> **?**Technology-driven research won't provide the answers you need unless you ask the right questions.
>
> Dan Himelfarb, Former President,
> Society of Competitive Intelligence Professionals

The World Wide Web, also referred to as WWW or simply **?**the Web", is the most used component of the Internet. It is graphical in nature and requires a special software program, or browser, for viewing WWW multimedia documents. Multimedia documents are pages which display graphics, video clips and sound bites. Web browsers such as Netscape Navigator, Internet Explorer or Mosaic allow users to access documents that display continuously or regularly updated information such as market prices, exchange rates, weather maps, transportation schedules or other information related to agribusiness.

The Internet accesses and brings the resources of the world's leading commercial businesses, universities, and research institutions to the desktop of businesses around the world. Remember, though, that even this wealth of online research has its limitations. Given the growing volume of graphical information on the Web, how we look for information is an important consideration.

We can find information on the Web through three primary mechanisms: 1) the Uniform Resource Locator (URL); 2) special search engines or programs that search for resources widely over the Internet; and 3) mega sites or meta indexes.

> **Uniform Resource Locator (URL).** The Uniform Resource Locator (URL) is the basis for referring to specific resources on the Web. A URL consists of a string of characters that uniquely defines where a resource is physically stored. Once a useful resource has been identified, it is quicker to access that specific information source using a URL. The URL for regularly accessed resources can be saved as a bookmark by the user. (A diskette containing an electronic bookmark file is available for this guide. For more information about how to install the bookmark file on your personal computer, please refer to the section entitled *Training Resources for Computer Lab Session 4.*)

> **Search Engines.** If you need information on a specific business or agribusiness topic, but do not know the name or location of an appropriate information source, how would you find or retrieve a document or file from the World Wide Web? Fortunately, there are several search engines, or programs that have been developed to search and identify specified information on the World-Wide Web. The results of these Web-wide searches are then indexed to allow for faster searching and access by individual users. (A review of the various search engines plus tips on composing effective search engine queries are included in the section entitled *Training Resources for Computer Lab Session 4.*)

> **Mega Sites or Meta Indexes.**   Mega sites or meta indexes are huge lists or

collections of links to other Internet sites (not just Web resources). These lists are usually indexed or categorized into hierarchical subject categories, and allow users to quickly move among related information sites. Mega sites and meta indexes provide convenient, one-stop research places that can save the user time in identifying sources of relevant information.

The exercises in this session provide practical examples of how URLs, search engines, and mega sites can be used to access agribusiness networking and market information on the World Wide Web.

C   Exercise 4.1 uses the Web browser and URLs to quickly access well organized, graphical listings of selected electronic mailing lists related to Africa, agribusiness or general business interests.

C   Exercise 4.2 introduces training participants to selected agribusiness market information resources on the Internet.

C   Exercise 4.3 introduces training participants to selected agricultural commodities and futures market information resources on the Internet.

C   Exercise 4.4 introduces training participants to agricultural, general business and other industry trade shows.

C   Exercise 4.5 provides an opportunity to development a search strategy (using keyword and boolean operators) and to utilize one or more search engine to identify critical agribusiness market information.

C   Exercise 4.6 examines discussion topics about the quality and content of agribusiness market information available through the Internet.

As noted above, tips on how to effectively utilize the leading search engines are included under the section entitled *Training Resources for Computer Lab Session 4.* In addition, selected Africa, agribusiness and general business related Internet sites have been researched, reviewed and saved as an electronic bookmark file available with this training material. These resources can be used in conjunction with the practice exercises in this training course, or for further independent study. The additional resources include:

C   The Spiders Apprentice, How to Use Web Search Engines
        <   Tips on Searching the Web
        <   Spidaps Basic Search Engine FAQs (Frequently Asked Questions)
        <   How to Plan the Best Search Strategy
        <   How Search Engines Work
        <   The Web Search Wizard
        <   In-depth Analysis of Popular Search Engines
C   Search Engine Tips
        <   Yahoo!
        <   Infoseek
        <   Lycos
        <   Excite

C Instructions for opening and viewing the electronic bookmark file of selected Africa, agribusiness and general business related Internet sites.

Practice Exercise 4.1 Using the World Wide Web to Identify Relevant Electronic Mailing Lists of Interest to West African Agribusiness

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Exercise Overview

In this exercise, you will use a World Wide Web browser to augment the e-mail and personal networking skills you learned in the Computer Lab Session 2 exercises. Instead of using e-mail, you will use uniform resource locators (URLs) and hyptertext links to obtain tailored information about electronic mailing lists, networks, and usenet groups related to Africa, agribusiness, or business interests. You will view the resulting information in a graphical online environment.

A list of URLs for selected mailing list resources are provided below. Alternatively, you can also choose to search a list of lists by using a keyword search facility.

Africa
URL: http://www.igc.apc.org/apic/bp/inetall.html#Section 8
URL: http://www-sul.stanford.edu/depts/ssrg/africa/email.html

Agriculture
URL: http://www2.nis.za/jm/waw/agmail.htm
URL: http://www.aeco.ttu.edu/aecovl/index.htm
URL: http://www.agpr.com/consulting/maillist.html

Agribusiness
URL: http://www.agribiz.com/agInfo/resMail.html

Marketing
URL: http://nsns.com/MouseTracks/tloml.html

Key Word Search of Mailing Lists Directories
URL: http://www.liszt.com/
URL: http://www.lsoft.com/lists/listref.html
URL: http://catalog.com/vivian/interest-group-search.html
URL: http://www.neosoft.com/cgi-bin/paml_search/

Practice Exercise

Step 1. Double click on the, Internet Explorer or Netscape icon from your Windows screen, or from the Program Manager. After the software loads, select Open Location from the File drop-down menu or click your mouse in the space provided for Location:. Then type one of the URLs provided above in the *Exercise Overview*. (Note: The URL is case sensitive and must be typed exactly as shown.)

Step 2. A document will appear on your screen either with a short menu or a list of highlighted words or phrases. The highlighted words are links to other information or documents. When you find a link you would like to peruse, click on the highlighted word or phrase. The linked document will be loaded on your screen for viewing.

Step 3. If you would like to save information from one of the linked documents, select Save As... from the File drop-down menu. In the dialogue box that opens, select the location where you would like the file stored and type the name of the file in the space provided.

Step 4. To return to the previous document, simply click on the Back button on the Netscape or Mosaic window.

Step 5. Repeat Steps 1-3 for each of the remaining URLs provided in Step 1.

Step 6. If you would like to subscribe to an electronic discussion group, set subscription options, review names of other list subscribers, or post comments, follow the steps provided in Computer Lab Session 2, Practice Exercises 2.3-2.6.

Practice Exercise 4.2 Accessing agribusiness market information using Web browsers, URL addresses and bookmark files

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Exercise Overview

In this exercise you will identify and access agribusiness-related market information, prices and services. The tools you will use are the Web browser, Uniform Resource Locator (URL) addresses, and bookmark files. You will also practice skills for navigating or moving between the various information sources and sites on the World Wide Web.

The names of several specific and useful World Wide Web agribusiness sites are listed below along with their URL addresses (in italics). These sites are also bookmarked for faster access. (A diskette containing electronic bookmark files is available for this guide. For more information about how to install the bookmark file on your personal computer, please refer to the section entitled *Training Resources for Computer Lab Session 4.*)

African Sites

Commercial Farmers Union of Zimbabwe
URL: http://www.samara.co.zw/cfu/

Agricultural Information for Zambia
URL: gopher://lechwe.zamnet.zm:70/11/Agriculture

Agriweb
URL: http://www2.nis.za/jm/agriweb.htm

Agrilink Home Page
URL: *http://www.agrilink.co.za/*

Mbendi Information Services: Information for Africa
URL: *http://mbendi.co.za/comb.htm*

Mbendi Information Services: African Agricultural Industry
URL: http://mbendi.co.za/indy/agff/agffafcy.htm

Mbendi Information Services: Agricultural Products & Services of Africa
URL: http://mbendi.co.za/prod/g00m.htm

Other International Sites

Market Information System
URL: http://gnv.ifas.ufl.edu/~MARKETING/MARKET.HTML

Today's Market Prices
URL: http://www.todaymarket.com/

Market Information Sources Available Through the Internet
URL: http://www.aec.msu.edu/agecon/fs2/market/contents.htm

Commercial Sites in Agriculture
URL: http://ipmwww.ncsu.edu/cernag/commercial/market.html

Agriweb Canada
URL: http://www.agr.ca/agriweb/awhome-f.htm
URL: http://www.agr.ca/agriweb/link.htm

Practice Exercise

Step 1. Double click on the Internet Explorer, Netscape, or Mosaic icon from your Windows screen, or from the Program Manager.

Step 2. After the software loads, you may access these sites by using one of three methods: the conference web page, the bookmarks saved on your Web browser (Internet Explorer, Netscape, or Mosaic), or typing the appropriate URL in the space provided.

To use the bookmarks on your Web browser, click Bookmarks on Netscape or Favorites on Internet Explorer then go to the saved files in the drop-down menu box. Double click on one of the market information sites listed above.

To use the URL address for the Web site, click your mouse in the space provided entitled "Location" (Netscape) or "Address" (Internet Explorer). Then type one of the URL addresses for any of the market information sites listed above. Press the <Enter> or carriage return key. (Note: the URL is case sensitive and must be typed exactly as shown. Be sure to type only the italicized letters.)

Step 3. A document will appear on your screen either with a short menu or a list of highlighted words or phrases. (It will take a few seconds or longer to load the document). The highlighted words are links to other information or documents. When you find a link you would like to peruse, click on the highlighted word or phrase. The linked document will be loaded on your screen for viewing.

Step 4. To return to the previous document, simply click on the Back button on the Web browser window.

Step 5. Repeat Steps 1-3 using other URLs provided in the *Exercise Overview*. Write down any pertinent notations about the quality or usefulness of the various information sources encountered as you proceed from site to site. Did you find valuable linkages to other resources?

Step 6. To quit Internet Explorer, Netscape, or Mosaic, select Exit or Quit

Practice Exercise 4.3 Accessing agricultural commodities and futures markets using Web browsers, URL addresses and bookmark files

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Exercise Overview

In this exercise you will access agricultural commodities and futures markets from around the world. The tools you will use are the Web browser, Uniform Resource Locator (URL) addresses and bookmark files. You will also practice skills for navigating or moving between the various information sources and sites on the World Wide Web.

The names of several selected agricultural commodities and futures market sites are listed below along with their URL addresses (in italics). These sites are also bookmarked for faster access. (A diskette containing electronic bookmark files is available for this guide. For more information about how to install the bookmark file on your personal computer, please refer to the section entitled *Training Resources for Computer Lab Session 4.*)

African Sites

The Agricultural Markets Division of the South African Futures Exchange
URL: http://www.safex.co.za

African Stock Exchanges
URL: http://mbendi.co.za/exaf.htm

Other International Sites

Chicago Board of Trade
URL: http://www.cbot.com/

Kansas City Board of Trade
URL: http://www.kcbt.com/dgpsum.htm

Global Markets, The Web Center for Futures and Options
URL: http://www.ino.com/

CSE Exchange for coffee, sugar, cocoa, milk, Cheddar cheese, nonfat dry milk, butter futures and options markets
URL: *http://www.csce.com/*

Qualisteam, Banking and Finance, Options and Futures in the World
URL: http://www.qualisteam.com/eng/index.html
URL: http://www.qualisteam.com/eng/opt.html

Practice Exercise

Step 1. Double click on the Internet Explorer or Netscape icon from your Windows screen, or from the Program Manager.

Step 2. After the software loads, you may access these sites by using one of three methods: the conference web page, the bookmarks saved on your Web browser (Internet Explorer, Netscape, or Mosaic), or typing the appropriate URL in the space provided.

To use the bookmarks on your Web browser, click Bookmarks on Netscape or Favorites on Internet Explorer then go to the saved files in the drop-down menu box. Double click on one of the agricultural commodities or futures market sites.

To use the URL address for the Web site, click your mouse in the space provided entitled "Location" (Netscape) or "Address" (Internet Explorer). Then type one of the URL addresses for any of the market information sites listed above. Press the <Enter> or carriage return key. (Note: the URL is case sensitive and must be typed exactly as shown. Be sure to type only the italicized letters.)

Step 3. A document will appear on your screen either with a short menu or a list of highlighted words or phrases. (It will take a few seconds or longer to load the document). The highlighted words are links to other information or documents. When you find a link you would like to peruse, click on the highlighted word or phrase. The linked document will be loaded on your screen for viewing.

Step 4. To return to the previous document, simply click on the Back button on the Internet Explorer and Netscape.

Step 5. Repeat Steps 1-3 using other URLs provided in the *Exercise Overview*. Write down any pertinent notations about the quality or usefulness of the various information sources encountered as you proceed from site to site. Did you find valuable linkages to other resources?

Step 6. To quit Internet Explorer, Netscape, or Mosaic, select Exit or Quit from the File drop-down menu.

Practice Exercise 4.4 Accessing Agricultural and General Business Trade Show Information using Web Browsers, URL Addresses and Bookmark Files

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Exercise Overview

In this exercise you will access agricultural and other industry trade show information from around the world. The tools you will use are the Web browser, Uniform Resource Locator (URL) addresses and bookmark files. You will also practice skills for navigating between the various information sources and sites on the World Wide Web.

The names of several selected trade show sites are listed below along with their URL address (in italics). These sites are also bookmarked for faster access. (A diskette containing electronic bookmark files is available for this guide. For more information about how to install the bookmark file on your personal computer, please refer to the section entitled *Training Resources for Computer Lab Session 4*.)

Woyaa! Africa, African Events Calendar
http://www.woyaa.com/africaevents.html

ChemExpo, A Virtual Trade Show for the Chemical Industry
URL: http://www.chemexpo.com/

Trade Show Central
http://www.tscentral.com/

Practice Exercise

Step 1. Double click on the Netscape, Internet Explorer or NCSA Mosaic icon from your
Windows screen, or from the Program Manager.

Step 2. After the software loads, you may access these sites by using one of three methods: the
conference web page, the bookmarks saved on your Web browser (Internet
Explorer, Netscape, or Mosaic), or typing the appropriate URL in the space
provided.

To use the bookmarks on your Web browser, click Bookmarks on Netscape or
Favorites on Internet Explorer then go to the saved files in the drop-down menu
box. Double click on one of the trade show information sites listed above.

To use the URL address for the Web site, click your mouse in the space provided
entitled "Location" (Netscape) or "Address" (Internet Explorer). Then type one of
the URL addresses for any of the market information sites listed above.   Press the
<Enter> or carriage return key. (Note: the URL is case sensitive and must be typed
exactly as shown. Be sure to type only the italicized letters.)

Step 3. A document will appear on your screen either with a short menu or a list of highlighted
words or phrases. (It will take a few seconds or longer to load the document). The
highlighted words are links to other information or documents. When you find a
link you would like to peruse, click on the highlighted word or phrase. The linked
document will be loaded on your screen for viewing.

Step 4. To return to the previous document, simply click on the Back button on the browser.

Step 5. Repeat Steps 1-3 for each URL provided in the **Exercise Overview**. Write down any
pertinent notations about the quality or usefulness of the various information
sources encountered as you proceed from site to site. Did you find valuable
linkages to other resources?

Step 6. To quit Internet Explorer, Netscape, or Mosaic, select Exit or Quit from the File drop-
down menu.

Practice Exercise 4.5 Use a search engine and develop a search strategy to identify relevant agribusiness market information sources.

Exercise Overview

When looking for information on the Internet, it is important to know that nearly every Internet search engine uses some form of a keyword or boolean search. **Keywords** are terms that are likely to occur in the kind of document or information materials that you are looking for. **Boolean operators** are a formal way of combining those keywords in order to search on more than one keyword at a time. The three basic boolean operators are AND, OR, and NOT.

> **AND**--The word **AND** performs an intersection between two sets of keywords. For example:
> ### Africa AND agribusiness
>
> would search for records that have both the words Africa and agribusiness in them. Using the boolean operator AND tends to narrow the search results.
>
> **OR**--The word **OR** performs a union of two sets of keywords. For example:
>
> ### Africa OR agribusiness
>
> would search for records that have either one or both of the word Africa or the word agribusiness in them. Using the boolean operator OR tends to broaden the search results.
>
> **NOT**--The word **NOT** performs an elimination of a keyword from another keyword. For example:
>
> ### Africa NOT agribusiness
>
> would search for records that have the word Africa but not the word agribusiness in them.

In this exercise you will identify relevant agribusiness market information sources using Infoseek, a search engine which searches the World Wide Web using keywords and boolean operators. You will need to develop a search strategy to identify information relevant to your own interests. (You may also choose to use an alternative search engine such as Alta Vista, Excite, or Yahoo! A review of these various search engines plus tips on how to compose effective search queries for several leading search engines are include in the *Training Resources* section of this guide).

Before you begin, we will discuss a few tips for searching with Infoseek. In general, click in the search box and type a few words that describe what you want to find. Using words and phrases, without special symbols or punctuation, works best. However, you can sometimes refine your searches by using special syntax in your search. Here are some quick secrets to better searching:

> **Finding names and titles.** Capitalize names and titles, such as December and Ghana. If you capitalize adjacent names, Infoseek treats the words as a single name.

If you want to search for several names or titles, use commas to separate the different names. **For example, to search for Angola and Ghana, type: Angola, Ghana.** Omitting the comma between names causes them to be treated as one single long name.

Finding a Phrase. Use double quotation marks or hyphens to group words that are part of a phrase. Use double quotation marks around words that must appear next to each other. Do not use single quotation marks (') in place of double quotation marks. Use hyphens (-) between words that must appear within one word of each other.

Specifying Words that Must Appear in the Results. Put a plus sign (+) in front of words that must be in documents found by the search. Do not put a space between the + and the word. **For example, to find city guides about Accra, type: city guide+Accra.** Do not put a space between the plus sign (+) and the word.

Specifying Words that Should Not Appear in the Results. Put a minus sign (-) in front of words that should not appear in any documents found by the search. **For example, to find all resources that contain agribusiness but not the United States, type: agribusiness -United States**. Do not put a space between the minus sign (-) and the word.

Practice Exercise

Step 1. Double click on the Internet Explorer, Netscape, or NCSA Mosaic icon from your
Windows screen, or from the Program Manager.

Step 2. Use one of the following methods to access the Infoseek search engine.

Double click on the Net Search button. This will take you to the
Netscape, Internet Explorer or Mosaic web page containing
hyperlinks to several search engines. Double click on the logo or
icon for Infoseek.

Alternatively, select **?**Open Location" from the File drop-down
menu or click your mouse in the space provided for Location: and
type: *http:/home.netscape.com/home/internet-search.html*
This will take you to the Netscape or Internet Explorer web page
containing hyperlinks to several search engines. Double click on the
logo or icon for Infoseek.

Step 3. Click in the search box and type a few words that describe what you want to find. You
may also use some of the search tips discussed in the ***Exercise Overview*** to limit or
narrow your search results.

Step 4. A list of Web sites related to your search topic will appear on your screen. The highlighted
words or phrases in this list are links to other Web sites or documents. When you
find a link you would like to peruse, click on the highlighted word or phrase. The
linked document will be loaded on your screen for viewing.

Step 5. If you would like to save the reference to a Web site location, select **?**dd Bookmark" from
the Bookmark drop-down menu. The URL to this Web site will automatically be
saved.

Step 6. To return to the previous document, simply click on the Back button on the Netscape,
Internet Explorer or Mosaic window.

Discussion Exercise 4.6

Step 1. Consider and discuss the following questions:

C   How long did it take to find agribusiness market information?

C   Was it quicker or easier to access the information using URLs, bookmarks or search engines?

C   How helpful, complete or accurate were the information sources?

C   Would regular access to this information benefit your agribusiness?

C   Was there specific agribusiness market information which you needed but could not find? If yes, what additional information do you need? How could you collect this information and make it available to other agribusiness groups in the West African region and to the rest of the World?

Computer Lab Session 5:
Identifying Trade Leads and Participating in Electronic Business Opportunities on the Internet

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The exercises in Computer Lab Session 5 provide practical examples of how to use the World Wide Web to identify trade leads and agribusiness opportunities in the electronic global marketplace of the Internet.

C Exercise 5.1 provides training participants with an opportunity to identify agribusiness trade leads within West Africa and from around the world.

C Exercise 5.2 challenges participants to view and evaluate the effectiveness of virtual market places created by companies who market their agribusiness products directly to their Internet audience.

C Exercise 5.3 presents a survey of selected international business and trade resources available through the World Wide Web

C Exercise 5.4 examines discussion topics about the quality and content of market information available through the Internet, and how West African agribusinesses can utilize the Internet to directly market their product information to a global audience.

Additional reference information for electronic trade lead and business opportunities are included under the sections entitled *Training Resources for Computer Lab Session 5* and *Selected Internet Information Guides*. These resources can be used in conjunction with the practice exercises in this training course, or for further independent study.

Practice Exercise 5.1 Identify Agribusiness Trade Leads on the Internet

Exercise Overview

In this exercise you will identify agribusiness trade leads within the West Africa region and from around the world. The tools you will use are the Web browser, Uniform Resource Locator (URL) addresses and bookmark files. You will also practice skills for navigating between the various information sources and sites on the World Wide Web.

The names of several selected trade lead resource sites are listed below along with their URL addresses (in italicized letters). These sites are also bookmarked for faster access. (A diskette containing an electronic bookmark files is available for this guide. For more information about how to install the bookmark file on your personal computer, please refer to the section entitled *Training Resources for Computer Lab Session 4*.)

The sites are divided into three categories: Africa, agriculture and general trade leads.

Africa

South African Trade, Commerce and Industry
URL: http://www.exinet.co.za/trade/trade.html

Africa: Business and Trade
URL: http://www.sas.upenn.edu/African_Studies/About_African/ww_trad.html

UNCTAD TPDC Link to Africa!!!
URL: http://www.unicc.org/untpdc/news/eto/africa/

ExiNet - the South African Trade Information Resource
URL: http://www.exinet.co.za/

WoYaa! Africa
URL: http://www.woyaa.com/Tree/Business/Products/

Agriculture

Green Biz, or the Green Business Corner.
URL: http://www.todaymarket.com/tmp_gbiz.htm

Market Information System
URL: http://gnv.ifas.ufl.edu/~MARKETING/MARKET.HTML

Agrilink Home Page
URL: http://www.agrilink.co.za/

General Trade Leads

Electronic Trade Opportunity
URL: http://www.unicc.org/untpdc/eto

IMEX: International Import and Export Business Exchange
URL: http://www.imex.com/imex/trade/opport.html

The Import-Export Bulletin Board
URL: http://www.iebb.com/links.html

International Business Resources on the WWW
URL: http://ciber.bus.msu.edu/busres/tradlead.htm

International Business Network (IBNET),
URL: http://www1.usa1.com/~ibnet/

Global Business Exchange, Chambers of Commerce and Industry
URL: http://www.worldchambers.com/gbxhp.html

Practice Exercise

Step 1. Double click on the Internet Explorer, Netscape Navigator, or NCSA Mosaic icon from your Windows screen, or from the Program Manager.

Step 2. After the software loads, you may access these sites by using the bookmark file saved in your browser or by typing the appropriate URL in the space provided.

To use the bookmarks saved for you on your Web browser, first click Bookmarks then click Go to Bookmarks... in the drop-down menu box. Double click on one of the trade lead sites listed above.

To use the URL address for the Web site, click your mouse in the space provided entitled Location:. Then type one of the URL addresses provided in the *Exercise Overview* for the trade lead information sites listed above. Press the <Enter> or carriage return key. (Note: the URL is case sensitive and must be typed exactly as shown. Be sure to type only the italicized letters.)

Step 3. A document will appear on your screen either with a short menu or a list of highlighted words or phrases. (It will take a few seconds or longer to load the document). The highlighted words are links to other information or documents. When you find a link you would like to peruse, click on the highlighted word or phrase. The linked document will be loaded on your screen for viewing.

Step 4. To return to the previous document, simply click on the Back button on the Internet Explorer, Netscape or Mosaic window.

Step 5. Repeat Steps 1-3 using for each of the URLs provided in the *Exercise Overview*. Write down any pertinent notations about the quality or usefulness of the various information sources as you proceed from site to site. Did you find any valuable or relevant trade lead possibilities?

Step 6. To quit Netscape Navigator, Internet Explorer or Mosaic, select Exit or Quit from the File drop-down menu.

Exercise 5.2 View Examples of Virtual Market Places for Agribusiness Products

Exercise Overview

In this exercise, you will review and evaluate selected examples of companies who market their agribusiness products directly to their Internet audience. Such interactive web sites are also referred to as Virtual Market Places.

The names of several selected virtual agribusiness market sites are listed below along with their URL addresses (in italicized letters). These sites are also bookmarked for faster access. (A diskette containing electronic bookmark files is available for this guide. For more information about how to install the bookmark file on your personal computer, please refer to the section entitled *Training Resources for Computer Lab Session 4*.)

Lowveld Tobacco Cooperative
URL: http://www.lowveldtobacco.co.za

Silo National des Graines Forestieres
URL: http://www.madonline.com/sngf/about_f.htm

Green Links
URL: http://www.todaymarket.com/tmp_link.htm

Caribbean Place
URL: http://www.caribplace.com/foods.htm
URL: http://www.caribplace.com/foods/jspcl.htm

Trader Joe's: A Unique Grocery Store
URL: http://www.traderjoes.com/

Practice Exercise

Step 1. Double click on the Netscape Navigator, Internet Explorer or NCSA Mosaic icon from your Windows screen, or from the Program Manager. After the software loads, select Open Location from the File drop-down menu or click your mouse in the space provided for Location:. Then type one of the URLs provided in the *Exercise Overview*. (Note: The URL is case sensitive and must be typed exactly as shown.)

Step 2. A welcome or home page for the virtual market site will appear on your screen containing highlighted words, logos, or images that serve as links to product or company information. When you find a link you would like to peruse, click on the highlighted word or phrase. The linked product information will be loaded on your screen for viewing.

Step 3. To return to the previous document, simply click on the Back button on the Internet Explorer, Netscape or Mosaic window.

Step 4. Evaluate each virtual agribusiness market site. Is the company effective in how it markets its agribusiness products? Who is the intended Internet audience, or what demographic group or market does the advertisement appear to be targeting? What information is provided about the product and what additional information is needed? What suggestions, if any, would you offer for improving the marketing approach or company presentation?

Step 5. Repeat Steps 1-4 for each URLs provided in the **Exercise Overview**.

Step 6. To quit Internet Explorer, Netscape Navigator, or Mosaic, select Exit or Quit from the File drop-down menu.

Exercise 5.3 Survey of International Business and Trade Resources Available Through the World Wide Web

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Exercise Overview

In this exercise you will survey selected international business and trade resources available through the World Wide Web. The tools you will use are the Web browser, Uniform Resource Locator (URL) addresses and bookmark files. You will also practice skills for navigating or moving between the various information sources and sites on the World Wide Web.

The names of several prominent sites are listed below along with their URL addresses (in italicized letters). Many of these sites are mega sites, and provide links to additional international business web sites. These sites are also bookmarked for faster access. (A diskette containing electronic bookmark files is available for this guide. For more information about how to install the bookmark file on your personal computer, please refer to the section entitled *Training Resources for Computer Lab Session 4*.)

The sites are divided into four categories: general business, international business, international trade, and statistical and market information resources.

General Business Resources

Starting Points: Business
URL: http://www.stpt.com

Business Researchers Interests
URL: http://www.brint.com/interest.html

International Business Resources

International Business Resources on the World Wide Web
URL: http://ciber.bus.msu.edu/busres.htm

World Class Supersite
URL: http://web.idirect.com/~tiger/supersit.htm

O & A Currency Converter
URL: http://www.olsen.ch/cgi_bin/exmenu

Universal Currency Converter
URL: http://www.xe.net/currency/

International Trade Resources

Trade and Business Tools
URL: http://web.idirect.com/~tiger/tools.htm

InfoManage - International Trade
URL: http://www.infomanage.com/International/Trade/

International Trade Centre UNCTAD/WTO (ITC)
URL: http://www.intracen.org/

FinDat Database: Country Profiles for Trading & Investment Appraisal
URL: http://www.findat.com/defin.htm

Statistical and Market Information Resources

Business information sources on the Internet:
Statistical, economic and market information
URL: http://www.dis.strath.ac.uk/business/market.html

International Trade Administration: Trade Statistics
URL: http://www.ita.doc.gov/

Practice Exercise

Step 1. Double click on the Netscape Navigator, Internet Explorer or NCSA Mosaic icon from
your Windows screen, or from the Program Manager.

Step 2. After the software loads, you may access these sites by using the bookmark file saved on
your browser or by typing the appropriate URL in the space provided.

To use the bookmarks saved for you on your Web browser, first click Bookmarks
then click Go to Bookmarks... in the drop-down menu box. Double click on one of
the business resources sites listed above.

To use the URL address for the Web site, click your mouse in the space provided
entitled Location:. Then type one of the URL addresses provided in the ***Exercise
Overview*** for the business resources sites listed above.   Press the <Enter> or
carriage return key. (Note: the URL is case sensitive and must be typed exactly as
shown. Be sure to type only the italicized letters.)

Step 3. A document will appear on your screen either with a short menu or a list of highlighted
words or phrases. (It will take a few seconds or longer to load the document). The
highlighted words are links to other information or documents. When you find a
link you would like to peruse, click on the highlighted word or phrase. The linked
document will be loaded on your screen for viewing.

Step 4. To return to the previous document, simply click on the Back button on the Netscape,
Internet Explorer or Mosaic window.

Step 5. Repeat Steps 1-3 using for other URLs provided in the ***Exercise Overview***. Write down
any pertinent notations about the quality or usefulness of the various international
business and trade resources as you proceed from site to site. Was it difficult to
follow the links on these mega sites?

Step 6. To quit Netscape, Internet Explorer or Mosaic, select Exit or Quit from the File drop-down
menu.

Discussion Exercise 5.4

Step 1. Consider and discuss the following questions:

C   Which international trade sites appeared to have the most relevant trade leads for West African agribusiness?

C   Were viable trade leads identified? What methods would you use to respond to these trade leads?

C   Could West African agribusinesses utilize the Internet to create an online business presence or directly market their product information to a global audience? What steps must be taken to achieve such a goal?

C   Did you identify useful business resources and tools? Would your company or association benefit from daily access to these business resources? If not, what alternative or additional business resources would be helpful to your company or association?

Training Resources for
Computer Lab Session 1:
Basic Electronic Mail Skills

C **A Beginner's Guide to Effective E-Mail**

C **Business Netiquette Intemational**

C **List of African Full Internet & E-Mail Services Providers**

C **List of Country Level Domain Names**

Training Resources for
Computer Lab Session 2:
Electronic Discussion Groups and Mailing Lists

C   Discussion Lists: Mailing List Manager Commands

Training Resources for
Computer Lab Session 3:
Advanced E-Mail Skills for Accessing the Internet

C   **Dr. Bob's Guide to Accessing the Internet**

C   **Agora: Retrieving WWW Documents through mail**

Training Resources for
Computer Lab Session 4:
Searching for Agribusiness Market Information on the World Wide Web

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C   **The Spider's Apprentice**

C   **How To Search the World Wide Web: A Tutorial for Beginners and Non-Experts**

Training Resources for
Computer Lab Session 5:
Participating in Electronic Trade Leads
and Business Opportunities

C **Internet Resource Guide to Accessing and Posting**

C **International Business Opportunities and Trade Leads**

C **Africa-Business (Guide to Internet Resources)**

Training Resources:
Selected Guides to Information Resources on the Internet

C **Agriculture, Agribusiness, and Food Security on the World Wide Web: Selected Internet Sites with Special Reference to Africa**

C **Commodity Information Resources on the Internet**

C **World Wide Web Site Guide to African Food Science Conference**

C **Food Science Journals**

C **African Networking and Connectivity**

Training Resources:
Selected Reading

C   **Africa Development: More Than Just Internet Connections**

C   **Telecommunications in Africa - via Internet in Particular**

C   **Internet and International Marketing**